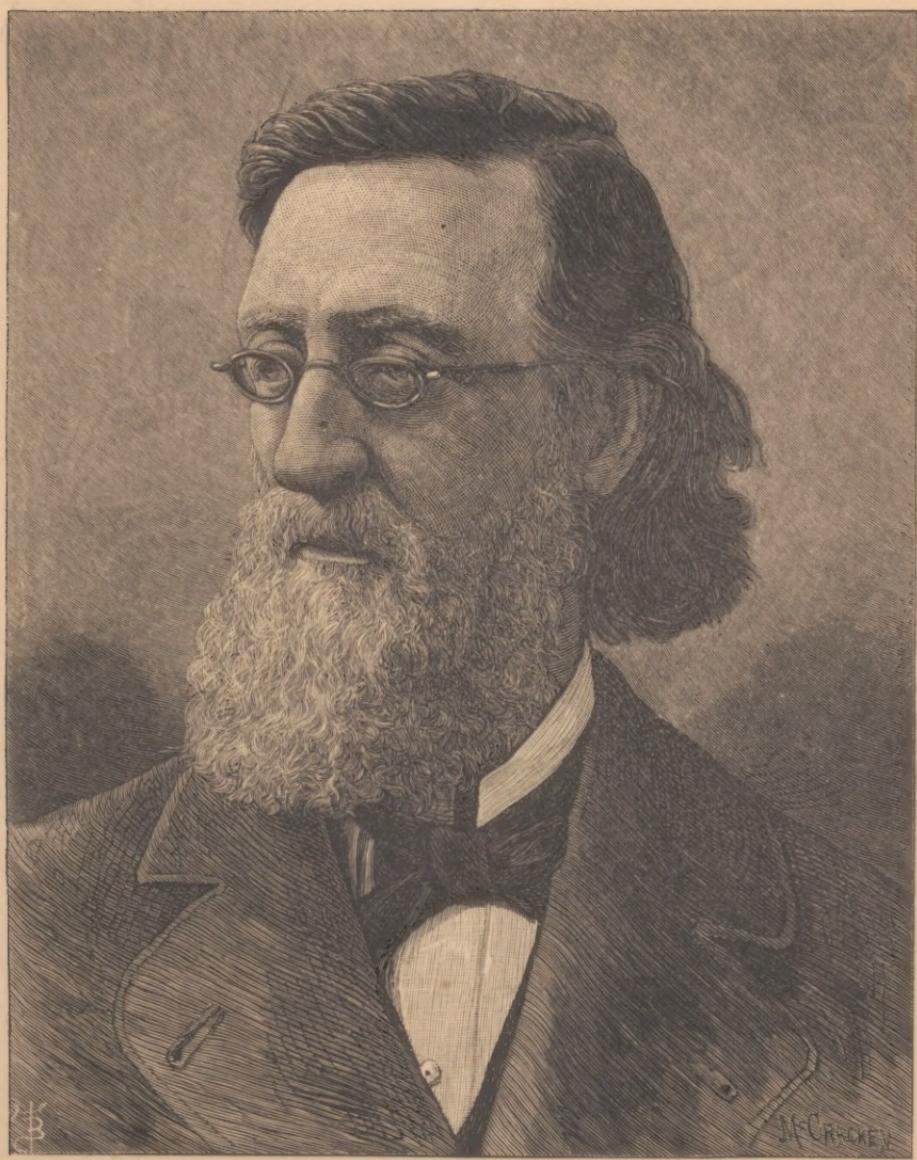


Sketch of Professor J.P. Lesley —

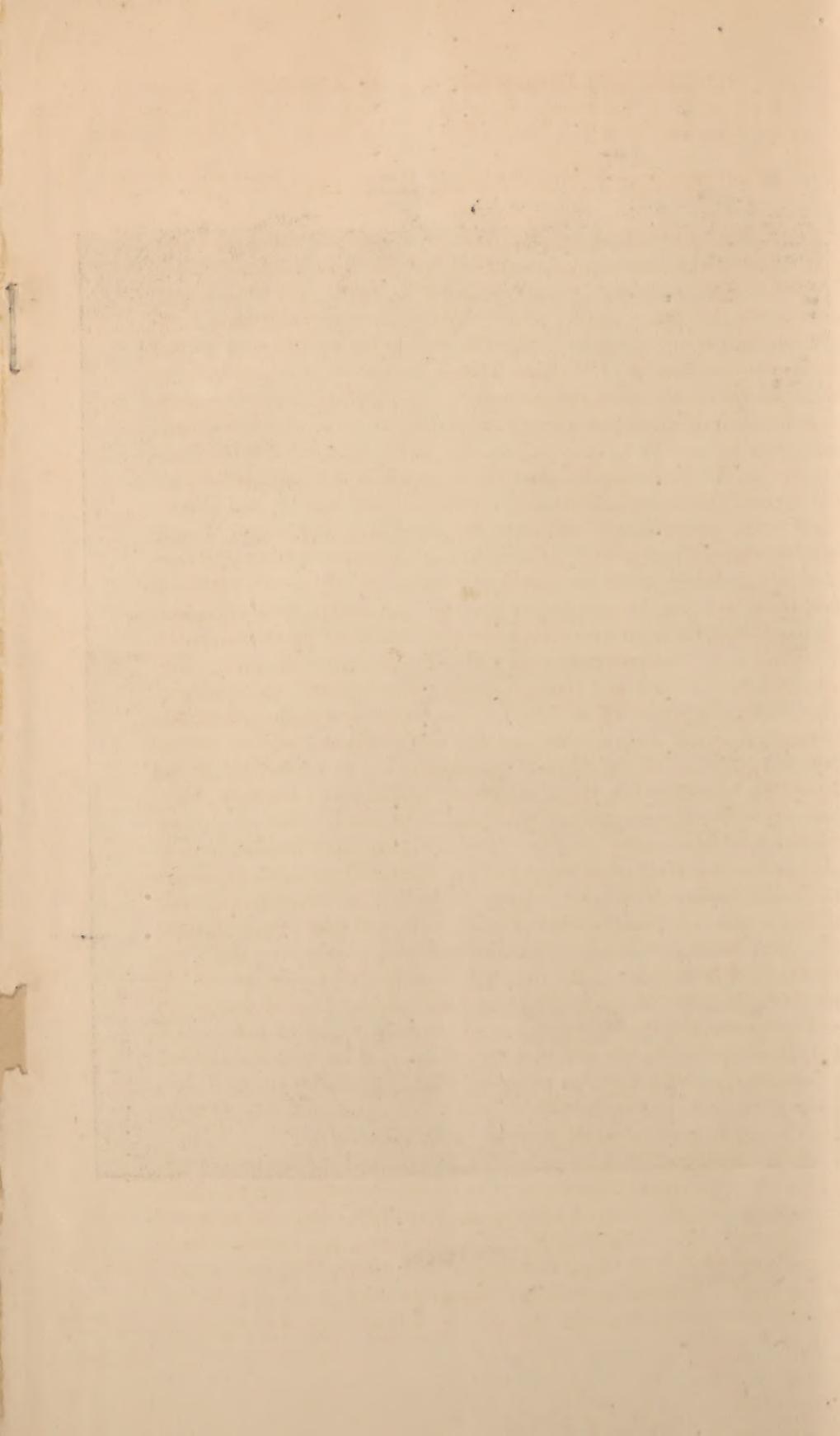




J. PETER LESLEY.

Popular Science Monthly
Sept 1884.

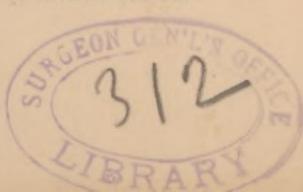




SKETCH OF PROFESSOR J. P. LESLEY.

THE subject of this sketch, Professor J. P. LESLEY, this year President of the American Association for the Advancement of Science, was born in Philadelphia, September 17, 1819. He is of Scotch extraction, his grandfather, Peter Lesley, having emigrated from Aberdeenshire in Scotland. From his sixth to his twelfth year he was under the instruction of William Tucker, and showed a marked predilection for mathematics and geography. His father, a cabinet-maker, was an accurate draughtsman and an intelligent lover of architecture, and that he was in advance of his age in the matter of education is shown by the fact that he placed the pencil in his children's hands before they could write, and daily exercised them during the dinner-hour in the precise use of language for describing places and things, while obliging them to test the accuracy of their descriptions by drawings and sketches, which he mercilessly criticised. A good foundation was thus laid for those logical, linguistic, and artistic pursuits which young Lesley followed up throughout his academical years, and at the University of Pennsylvania, from which he graduated in 1838. The acquisition of French and German, music, painting, and the construction of toy machinery of all kinds in his father's workshop, were his recreations out of school-hours, and led him afterward into the ardent study of the classical and Oriental languages, and finally to that of the Egyptian hieroglyphics, those fossils of comparative philology, while occupied with the mechanical problems of geology, to which subject his life has been mainly devoted. From 1839 to 1841 Mr. Lesley was engaged on the Geological Survey of the State of Pennsylvania, under Professor Henry D. Rogers. Early interested in religious subjects, in the autumn of 1841 he entered the theological seminary at Princeton, New Jersey, and in 1844 was licensed as a minister by the Presbytery of Philadelphia. He devoted himself for a year or two to religious teaching among the German population of Pennsylvania, and in 1847 became the regular pastor of a Congregational church in Milton, Massachusetts; but his theological views soon underwent such expansion that he left the pulpit and settled in Philadelphia, to devote himself to work in the field of science. He was married, in 1849, to Miss Susan Lyman, of Northampton, Massachusetts.

In the spring of 1844 he sailed for Europe, and walked with knapsack and blouse through the western and southern provinces of France, through Savoy, Switzerland, and Germany to Halle, where he attended the lectures of Tholuck, Erdmann, Leo, and Ulrici, and returned home in the spring of 1845. In 1863 he was sent by the President of the Pennsylvania Railroad to examine the methods of hardening the surface of rails, and to report on the success of Bessemer's invention. In



the course of this journey he visited all the iron-works where flasks had been erected in England, Belgium, the south and west of France, and in Austria. In the autumn of 1866 he sailed for Brest, by the order of his physician, and, traveling through Italy, returned to perform his duties as United States Commissioner at the opening of the Paris Exposition of 1867. After struggling with a painful illness three months, he walked through the Vosges Mountains, and remained the rest of the season at Vevay in Switzerland, and then went to Egypt as the guest of Charles Hale, the United States consul-general at that time, with whom he went up the river to the first cataract in one of the viceroy's yachts, returning to Italy, England, and the United States in the spring of 1868, but abstaining from all serious business until the end of that year.

His health slowly improved, but four years elapsed before he could do an ordinary day's work; and it has been his habit ever since to seek relaxation from business, when too long continued, by short trips to Europe. Such were made in 1872, 1874, 1876, 1878, 1880, 1882, and 1884, in each case remaining abroad only two or three weeks.

In 1872 Mr. Lesley was appointed Professor of Geology and Dean of the Faculty to the newly established scientific department of the University of Pennsylvania, and in 1874 he was made chief geologist of Pennsylvania under a new act providing for a complete geological resurvey of that State. He had, in 1842, constructed the State geological map and sections for Pennsylvania, and in 1846-'47 revised them and prepared the drawings and a large part of the text of the subsequently published report on the geology of that State. His work as a geologist has been more especially devoted to the coal formations of North America, and he is regarded as a chief authority on all questions connected therewith. His "Manual of Coal and its Topography" (1856) is esteemed alike for its classification of the Appalachian coal strata and for its illustrations of topographical geology. Most of Professor Lesley's personal field-work remains unpublished, such as his elaborate survey of the Cape Breton coal-fields in 1862-'63; his topographical and geological survey of the Broad Top coal-field, which occupied two years; his contoured map of the Kishkaminitas and Loyalhanna country in Western Pennsylvania, ordered by the Pennsylvania Railroad Company, which also occupied two years; his survey of the Tennessee coal-fields west of Knoxville, etc.

Abstracts from his reports of surveys of the iron-ore deposits of Huntingdon and Centre Counties, and of Cumberland and Franklin Counties, Pennsylvania; of the titaniferous iron-ore range of North Carolina; of the Embreeville district in East Tennessee; of the geology of Tazewell, Russell, and Wise Counties in Virginia; of coal, iron, and petroleum districts in Western Pennsylvania; and of the surface petroleums of the Sandy River country in Kentucky—were published, with maps and woodcuts, in the "Proceedings of the American

Philosophical Society" under various dates. During the last ten years his official duties as director of the State survey, involving the publication of about seventy volumes of reports, have prevented in a great measure his personal work as a geologist, and he has published nothing over his own name except prefaces and notes to these reports. But a large number of his geological papers, as above referred to, together with various essays on philological and antiquarian subjects, will be found in the "Proceedings of the American Philosophical Society."

Professor Lesley was for several years Secretary to the American Iron Association, and he has also for many years been Secretary and Librarian of the American Philosophical Society. Although a hard worker in science, he is a man of varied intellectual accomplishments, of a philosophical bent of mind, and interested in many of those higher questions which are agitating the mind of the age. In 1865 he gave a series of lectures before the Lowell Institute in Boston, which was afterward published (1868) under the title of "Man's Origin and Destiny as seen from the Platform of the Sciences." After being out of print for several years, a new edition of this work was called for, and it was revised and reissued, with six additional chapters, in 1881.

The book abounds in evidence of the author's independence and originality, and of his varied and extensive erudition. It is but just to say, however, that it was not intended as an elaborate or systematic treatise, and it is thus characterized by the author himself: "The author never contemplated anything beyond a general sketch of the present bearings of science upon the vexed question of the origin and early history of man. But the question has many subdivisions. He intended the several lectures to be separate sketches of those subdivisions of the field of discussion—mere introductions to their proper study. His views are stated, therefore, in round terms. Nothing is closely reasoned out. Much is left to the logical instinct, and more to the literary education, of the reader. Reference is everywhere made to sources of information within easy reach of all. Even the style of an essay has been avoided. The book is merely a series of familiar conversations upon the current topics of interest in the scientific world." This spirited book was noticed in Volume XX of "The Popular Science Monthly," and the following estimate was given of it: "We have gone through Mr. Lesley's book with interest and profit—pleased with its brilliant and forcible passages, which are frequent; instructed by its learning and its abounding facts, and stimulated by its incisive observations and its forcible arguments. But the work is strongly stamped with the author's individuality, and its supplementary chapters especially, fresh and breezy as they are, contain various opinions to which we find it impossible to subscribe. But, notwithstanding its faults, the work is original, helpful, and invigorating, and those who are concerned to note the drift of modern inquiry will be sure to find it serviceable."

CORRESPONDENCE.

WHAT KNOWLEDGE IS OF MOST WORTH.

Messrs. Editors:

WHILE this discussion about the great ascendancy given the study of the classics in all of our institutions of learning is going on, we beg to offer the following facts: Here we have the great University of Michigan, the pride of the State, with its fourteen hundred students, and schools of literature, science, and the arts, dentistry, law, pharmacy, music, medicine, political and sanitary science, and one can graduate and take the coveted degree of A. B., receive the commendation of his teachers, then study in a post-graduate course and receive the degrees of A. M. and Ph. D., and be an *educated fool* so far as knowing anything of elocution is concerned, or having acquired any knowledge of the structure and composition of his own body or of the laws of health.

To the credit of the university, it may be said that many courses of study are offered and a wide latitude given for choice; but, while four years of study in Latin and two in Greek are required in the preparatory schools and about one and a half year each in Latin and Greek in the university, nothing is required in the fitting schools or university in either elocution or physiology and hygiene, and there is absolutely no provision made in any department for teaching the former, and nothing in the latter is required or offered candidates for the degree of A. B. worthy of the name. It still seems to be considered of vastly more importance to have a smattering of Latin and Greek than to know anything about one's own body and how to care for it, or to speak well our own tongue.

OBSERVER.

ANN ARBOR, MICHIGAN, May 28, 1884.

THE QUALIFICATIONS OF LEGISLATORS.

Messrs. Editors:

AFTER reading what Herbert Spencer says of the "Sins of Legislators," I am impressed with the idea that it would be a step in the right direction to make it a necessary qualification for a member of Congress or State Legislature that he shall pass a satisfactory examination before some university board, and get a certificate showing his attainments in the studies of political economy and civil government. This would at least compel candidates for those positions to devote some time to the study of those branches—a thing they now seldom do. I see no reason why they should not be compelled to prepare

themselves for their work as much as common-school teachers do now.

J. G. MALCOLM.

TOPEKA, KANSAS, July 1, 1884.

"AN EXPERIMENT IN PROHIBITION"
FROM ANOTHER POINT OF VIEW.*Messrs. Editors:*

The May number of "The Popular Science Monthly" contained an article entitled "An Experiment in Prohibition," some of the statements in which were so one-sided and inaccurate that they can not be allowed to pass without challenge. Among those statements were assertions that in the State of Vermont the prohibitory law is "an absolute dead letter"; that the returns of the United States revenue officers show that there are in that State *four hundred and forty-six* places where intoxicating liquors are sold; that "in the city of Burlington there are about threescore places where liquor is sold; and in Rutland, St. Albans, and all the larger towns, a proportional number, and in every village in the State, with the exception of a few inconsiderable hamlets, at least one such place"; that "a large proportion of the dram-shops are located upon the principal streets and there is no concealment or attempted concealment of the illegal traffic conducted within them"; and that prosecutions of liquor-sellers, on whom persons arrested for intoxication have disclosed, are "very common," but are confined to "the lowest class of liquor-dealers" and are "invariably for a first offense."

Two of these statements contradict each other. If prosecutions, though only for first offenses and of the lowest class of liquor-dealers, are "very common," it can not be correct to say that the law is an absolute dead letter. Most certainly it is *not* an absolute dead letter.

The statement of the number of places in Vermont where intoxicating liquors are sold was obtained from a newspaper compilation, from the returns of the United States Collector of Internal Revenue for the year ending April, 1883. The same returns show that, of the 446 persons paying the United States tax as dealers in intoxicating liquors, about three hundred were druggists, who must use, and keep, and sell, alcohol and spirits for purposes recognized as legitimate. While some of these undoubtedly sell liquors to a greater or less extent for other than "medicinal, mechanical, and chemical purposes," their shops can not, as a class, be called "dram-shops"—and many

